

## **Appendix II**

### **Idaho Vegetation and Land Cover Classification System**

Vegetation coverage determined to be high risk for fire spread included:

- Vegetation cover equal to class numbers:
  - 3300 - 3316
  - 4202, 4206, 4212, 4215, 4216, 4222, 4223, 4224, 4225, 4226, 4228, 4229
  - 4301

## Idaho Vegetation and Land Cover Classification System

Modified from Redmond et al. (1997) and Homer et al. (1998)

### 1000 Urban or Developed Land

#### 1000 Urban

Description: Towns and cities

Extent: North Idaho

#### 1001 High Intensity Urban

Description: Towns and cities with populations > 1,000

Extent: South Idaho

#### 1002 Low Intensity Urban

Description: Towns and cities with populations < 1,000

Extent: South Idaho

#### 1101 Disturbed, High

Description: Large mines, airports, and golf courses that are separated from urban areas

Extent: South Idaho

#### 1102 Disturbed, Low

Description: Small mines, gravel pits, and airplane landing strips.

Extent: South Idaho

### 2000 Agricultural

#### 2000 Agricultural land

Description: Row crops, irrigated pasture and hay fields, dry farm crops and fallow fields

Extent: North and South Idaho

### 3000 Non-Forested Lands

#### 31xx - Grasslands

##### 3101 Foothills Grassland

Description: Grass and forb co-dominated dry meadows and ridges associated with species such as sagebrush, cinquefoil, snowberry and willow.

Principal Species: *Agropyron* spp., Needle and Thread Grass, Bluegrasses, Idaho Fescue. Also containing Cinquefoil, Lupine, Arrowleaf Balsamroot

Extent: North and South Idaho

##### 3102 Disturbed Grassland

Description: Grassland dominated by noxious weeds and other exotic species such as; Cheatgrass, Knapweed, St. Johns-wort, Japanese Brome, Thistle. Greater than 30% exotic cover.

Extent: North Idaho

##### 3103 Herbaceous Clearcut

Description: Grass or forb dominated recent clearcuts

Extent: North and South Idaho

##### 3104 Montane Parklands and Subalpine Meadow

Description: Grassland ridges, forest openings and meadows dominated or co-dominated by native perennial montane or subalpine grass species. Bluebunch

Wheatgrass, Idaho Fescue, Bluegrasses (*Poa* spp.), Sedges (*Carex* spp.), Timothy. May include: yarrow, arnica, arrowleaf balsamroot, fireweed, etc.

Extent: North and South Idaho

**3105 Wet Meadow**

Description: Grass and forb co-dominated mountain meadows where soil moisture is abundant North and South the growing season.

Principal Species: Reedgrass, sedges (*Carex* spp.), hairgrass (*Deschampsia cespitosa*), Timothy, rushes (*Juncus* spp.), bluegrasses (*Poa* spp.)

Extent: South Idaho

**3106 Herbaceous Burn**

Description: Grass or forb dominated recent burn

Extent: South Idaho

**3107 Shrub/Steppe Annual Grass-Forb**

Description: Grasslands dominated or co-dominated by cheatgrass, medusahead, *Agropyron* spp., *Poa* spp., *Stipa* spp. or Idaho Fescue associated with Western and Rocky Mountain Juniper

Extent: South Idaho

**3109 Perennial Grassland**

Description: Grassland dominated by seeded crested wheatgrass and other common seeded grass species. Associated with Curleaf Mountain Mahogany and Juniper

Principal Species: *Agropyron* spp., Cheatgrass, Idaho Fescue, *Poa* spp., *Stipa* spp.

Extent: South Idaho

**3110 Perennial Grass Slope**

Description: Grasslands dominated or co-dominated by native perennial grass species such as bluebunch wheatgrass, Idaho fescue, junegrass, and mutton bluegrass on foothill and canyon slopes above 15 degrees. Associated with Curleaf Mountain Mahogany, Juniper and Ponderosa Pine.

Extent: South Idaho

**32xx – Mesic Shrublands**

**3201 Mesic Upland Shrubs**

Description: upland deciduous shrub communities

Principal species: Alder, Maple, Bearberry, Hawthorn, Ceanothus, Buffloberry, chokecherry, Prince's Pine, Huckleberry, Whortleberry, Ocean Spray, Raspberry, Rose, Spiraea

Extent: North Idaho

**3202 Warm Mesic Shrubs**

Description: upland shrublands, naturally occurring or initiated by fire or clearcutting.

Principal Species: Alder, Serviceberry, Oregon Grape, Snowberry, Ceanothus, ninebark, chokecherry, rose, ceanothus, currant, willow, elderberry, spiraea

Extent: North and South Idaho

**3203 Cold Mesic Shrubs**

Description: subalpine shrublands dominated by *Salix* spp. and *Vaccinium* spp.

Principal Species: *Salix* spp. and *Vaccinium* spp., Labrador Tea, Mountain Heath, Alder

Extent: North and South Idaho

### 33xx – Xeric Shrublands

**3301 Curleaf Mountain Mahogany**

**3302 Description: Forest dominated by Mountain Mahogany at canopies greater than 59%**

Principal Species: Mountain Mahogany, *Artemisia* spp., Juniper, serviceberry, oregon grape, ceanothus, chokecherry, snowberry

Extent: North and South Idaho

**3304 Bitterbrush**

Description: Shrublands dominated by bitterbrush

Principal Species: Bitterbrush, mountain mahogany, juniper, sagebrush, chokecherry, snowberry, Idaho fescue, Bluebunch Wheatgrass, Ponderosa Pine, Douglas-fir, Aspen

Extent: North and South Idaho

**3305 Mountain Big Sagebrush**

Description: Shrubland dominated by mountain big sagebrush (*Artemisia tridentata vaseyana*)

Principal Species: Grand Fir, Subalpine Fir, Mountain Mahogany, Lodgepole Pine, Ponderosa Pine, Douglas-fir, bearberry, *Artemisia* spp., Ceanothus, ninebark, chokecherry, snowberry, bluebunch wheatgrass

Extent: South Idaho

**3306 Wyoming Big Sagebrush**

Description: Shrubland dominated by *Artemisia tridentata wyomingensis*

Extent: North Idaho

**3307 Basin & Wyoming Big Sagebrush**

Description: Shrubland co-dominated by basin big sagebrush (*Artemisia tridentata*) and Wyoming big sagebrush (*Artemisia tridentata wyomingensis*)

Principal species: Mountain Mahogany, Juniper, Ponderosa Pine, *Atriplex* spp., *Artemisia* spp., snowberry, chokecherry, etc.

Extent: South Idaho

**3308 Black Sagebrush Steppe**

Description: Shrublands dominated by Black Sagebrush (*Artemisia nova*)

Principal Species: Black Sagebrush, Three-tip sage (*Artemisia tripartita*), Sand sagebrush (*Artemisia filifolia*)

Extent: North Idaho

**3309 Silver Sage**

Description: Shrubland principally dominated by silver sage (*Artemisia cana*)

Principal Species: *Artemisia* spp., *Potentilla fruticosa*, currant, snowberry

Extent: South Idaho

**3310 Salt-desert Shrub**

Description: Shrubland principally dominated or co-dominated by *Artemisia spinescens*, Shadcale (*Atriplex confertifolia*), 4-wing saltbush (*Atriplex spinosa*) and greasewood (*Sarcobatus vermiculatus*).

Principal Species: *Artemisia* spp.

Extent: South Idaho

**3312 Rabbitbrush**

Description: Shrubland dominated by rubber rabbitbrush (*Chrysothamnus nauseosus*) or low rabbitbrush (*C. viscidiflorus*)

Principal Species: *Artemisia* spp., *Atriplex*, spp., bitterbrush, greasewood

Extent: North and South Idaho

**3315 Low Sagebrush**

Description: shrubland principally dominated by low sagebrushes (*Artemisia arbuscula*, *A. frigida*, *A. longiloba*, *A. nova*)

Principal Species: Mountain Mahogany, Juniper, Pinyon Pine, Ponderosa Pine, *Artemisia* spp., *Atriplex* spp., bitterbrush, snowberry

Extent: South Idaho

**3316 Mountain Low Sagebrush**

Description: shrubland dominated by Mountain Low Sagebrush (*Artemisia arbuscula*)

Principal Species: Mountain Mahogany, Whitebark Pine, Lodgepole Pine, Limber Pine, Ponderosa Pine, Douglas-fir, bearberry, *Artemisia* spp., Ceanothus, ninebark, snowberry, chokecherry

Extent: South Idaho

**4000 Forest Uplands**

**41xx – Broadleaf Forest**

**4101 Aspen**

Description: Woodland principally dominated by aspen

Principal Species: Subalpine fir, Englemann Spruce, Ponderosa Pine, Lodgepole Pine, Douglas-fir, Serviceberry, *Artemisia* spp., Oregon Grape, Ceanothus, chokecherry

Extent: South Idaho

**4102 Cottonwood**

Description: Woodland dominated principally by Black Cottonwood (*Populus trichocarpa*) and alder

Principal species: Black cottonwood, Paper birch, Box elder, red alder

Extent: North Idaho

**4103 Maple**

Description: Forest principally dominated by maple (*Acer glabrum*)

Principal Species: Mountain Mahogany, Juniper, Aspen, Douglas-fir, Serviceberry, *Artemisia* spp., Oregon grape, ceanothus, chokecherry, bitterbrush, currant, rose, snowberry

Extent: South Idaho

**42xx – Needleleaf Forest**

**4201 Englemann Spruce**

**4202 Description: Conifer forest dominated by Englemann Spruce**

Principal Species: subalpine fir, grand fir, lodgepole pine, whitebark pine, aspen, douglas-fir, serviceberry, maple, currant, huckleberry

Extent: North and South Idaho

**4203 Lodgepole Pine**

Description: Coniferous woodland principally dominated by lodgepole pine

Principal Species: subalpine fir, Englemann spruce, whitebark pine, aspen, douglas-fir, *Artemisia* spp., currant, *Vaccinium* spp.

Extent: North and South Idaho

**4205 Limber Pine**

Description: Conifer forest principally dominated by Limber Pine

Principal Species: maple, *Artemisia* spp. juniper, spiraea, bluebunch wheatgrass, cheatgrass, Idaho fescue, arrowleaf balsamroot

Extent: North Idaho

**4206 Ponderosa Pine**

Description: Conifer forest dominated by Ponderosa Pine

Principal Species: Juniper, lodgepole pine, Douglas-fir, bearberry, currant, *Rosa* spp., snowberry

Extent: North and South Idaho

**4207 Grand Fir**

Description: Conifer forest dominated by grand fir

Principal Species: Douglas-fir, western red cedar, western hemlock, mountain larch, ponderosa pine, lodgepole pine, serviceberry, Oregon grape, ninebark, snowberry, choke cherry, spiraea, huckleberry, maple

Extent: North and South Idaho

**4208 Subalpine Fir**

Description: Conifer woodland principally dominated by subalpine fir

Principal species: Englemann spruce, whitebark pine, limber pine, Douglas-fir, western white pine, mountain hemlock, alder, mountain heath, juniper, *Artemisia* spp., snowberry, *Vaccinium* spp.

Extent: North and South Idaho

**4210 Western Red Cedar**

Description: Conifer forest dominated by western red cedar

Principal Species: grand fir, western white pine, Douglas-fir, maple, twin flower, thimbleberry, pacific blackberry, snowberry

Extent: North Idaho

**4211 Western Hemlock**

Description: Conifer forest dominated by western hemlock

Principal Species: grand fir, Douglas-fir, western red cedar, maple, sitka alder, Utah honeysuckle, huckleberry

Extent: North Idaho

**4212 Douglas-fir**

Description: Conifer forest dominated by Douglas-fir

Principal Species: grand fir, lodgepole pine, ponderosa pine, Englemann spruce, limber pine, subalpine fir, aspen, serviceberry, *Artemisia* spp., ninebark, snowberry, chokecherry, Oregon grape, spiraea

Extent: North and South Idaho

**4215 Western Larch**

Description: Conifer forest dominated by western larch

Principal Species: grand fir, lodgepole pine, ponderosa pine, maple, bearberry, twin flower, ninebark, thimbleberry, huckleberry

Extent: North Idaho

**4216 Douglas-fir/Limber Pine**

Description: Conifer forest principally co-dominated by Douglas-fir and limber pine

Principal Species: subalpine fir, mountain hemlock, Englemann spruce, lodgepole pine, aspen, serviceberry, ninebark, chokecherry, bitterbrush, snowberry

Extent: South Idaho

**4217 Subalpine Pine**

Description: Conifer forest dominated either by whitebark pine or limber pine

Principal species: Subalpine fir, Englemann spruce, lodgepole pine, Douglas-fir, serviceberry, juniper, sagebrush, currant, snowberry, huckleberry

Extent: North and South Idaho

**4218 Subalpine fir/Whitebark Pine**

Description: Conifer woodland principally dominated by subalpine fir and whitebark pine

Principal Species: Englemann spruce, limber pine, lodgepole pine, Douglas-fir, *Artemisia tridentata*, snowberry, huckleberry

Extent: South Idaho

**4219 Mixed Whitebark Pine Forest**

Description: Conifer forest dominated by whitebark pine, codominant species is alpine larch

Principal Species: subalpine fir, Englemann spruce, lodgepole pine, common juniper, mountain heath, dwarf huckleberry, whortleberry

Extent: North Idaho

**4220 Mixed Subalpine Forest**

Description: Conifer forest dominated by subalpine fir with Douglas-fir, lodgepole pine, and Englemann spruce as a significant component

Principal species: whitebark pine, aspen, limber pine, sitka alder, Utah honeysuckle, menziesia, huckleberry, snowberry, *Artemisia tridentata*, serviceberry

Extent: North and South Idaho

**4221 Mixed Mesic Forest**

Description: Conifer forest dominated by western red cedar, grand fir, western larch and western hemlock

Principal Species: subalpine fir, western white pine, Douglas-fir, maple, prince's pine, twin flower, thimbleberry, huckleberry

Extent: North Idaho

**4222 Mixed Xeric Forest**

Description: Conifer forest dominated by ponderosa pine and Douglas-fir

Principal Species: Lodgepole Pine, Black Cottonwood, serviceberry, Oregon grape, ninebark, chokecherry, currant, willow, spiraea

Extent: North and South Idaho

**4223 Douglas-fir/Lodgepole Pine**

Description: Conifer forest co-dominated by Douglas-fir and lodgepole pine

Principal Species: grand fir, western white pine, western larch, subalpine fir, lodgepole pine, aspen, serviceberry, Oregon grape, syringa, ninebark, spiraea, snowberry, chokecherry, huckleberry

Extent: North and South Idaho

**4224 Standing Burnt or Dead Timber**

Extent: North Idaho

**4225 Douglas-fir/Grand Fir**

Description: Conifer forest co-dominated by Douglas-fir and grand fir

Principal Species: western larch, western white pine, western red cedar, Englemann spruce, ponderosa pine, lodgepole pine, subalpine fir, serviceberry, ninebark, Oregon grape, syringa, spiraea, chokecherry, snowberry, huckleberry, thimbleberry, ocean spray

Extent: North and South Idaho

**4226 Western Red Cedar/Grand Fir Forest**

**4227 Description: Conifer forest co-dominated by western red cedar and grand fir**

Principal Species: western larch, Douglas-fir, western hemlock, maple, twin flower, ninebark, thimbleberry, huckleberry

Extent: North Idaho

**4228 Western Red Cedar/Western Hemlock**

Description: Conifer forest dominated by western red cedar and western hemlock  
Principal Species: grand fir, western white pine, Douglas-fir, maple, prince's pine, twin flower, sticky currant, big huckleberry

Extent: North Idaho

**4229 Western Larch/Lodgepole Pine**

Description: Conifer forest dominated by western larch and lodgepole pine  
Principal Species: grand fir, subalpine fir, Douglas-fir, sitka alder, bearberry, twin flower, mountain ash, spiraea, huckleberry

Extent: North Idaho

**4230 Western Larch/Douglas-fir**

Description: Conifer forest dominated by western larch and Douglas-fir  
Principal Species: grand fir, lodgepole pine, ponderosa pine, maple, bearberry, Oregon grape, twin flower, spiraea, snowberry, huckleberry

Extent: North Idaho

**4231 Utah Juniper**

Description: Conifer forest principally dominated by Utah juniper  
Principal Species: Mountain mahogany, pinyon pine, serviceberry, *Artemisia* spp., bitterbrush, chokecherry, snowberry

Extent: South Idaho

**4231 Western Juniper**

Description: Conifer forest dominated principally by western juniper  
Principal Species: mountain mahogany, serviceberry, *Artemisia* spp., bitterbrush, snowberry

Extent: South Idaho

**4232 Pinyon Pine/Juniper**

Description: Conifer forest principally dominated by singleleaf pinyon pine and Utah juniper

Principal Species: mountain mahogany, serviceberry, *Artemisia* spp., bitterbrush, chokecherry, snowberry

Extent: South Idaho

**43xx – Mixed Needleleaf/Broadleaf Forest**

**4301 Mixed Needleleaf/Broadleaf Forest**

Description: Forest principally dominated by aspen and Douglas-fir, subalpine fir, lodgepole pine

Principal Species: Englemann Spruce, Ponderosa Pine, serviceberry, *Artemisia* spp., Oregon grape, ceanothus, chokecherry, rose, snowberry, bitterbrush, red-osier dogwood, willow, spiraea

Extent: North and South Idaho

**5000 Water**

**6000 Riparian and Wetland Areas**

**61xx – Forested Riparian**

**6101 Needleleaf Dominated Riparian**

Description: A mixed riparian class dominated by conifer species and shrubs

Principal Species: Douglas-fir, Western Red Cedar, Englemann Spruce, Subalpine fir, Maple, Lodgepole Pine, Aspen, Cottonwood

Extent: North and South Idaho



**6102 Broadleaf Dominated Riparian**

Description: Riparian forests dominated or co-dominated by black cottonwood and narrowleaf cottonwood

Principal Species: Aspen, Green Ash, Box Elder, Maple, Alder, Paper Birch, chokecherry, willow

Extent: North and South Idaho

**6103 Needleleaf/Broadleaf Dominated Riparian**

Description: Riparian forests co-dominated by broadleaf (> 25% and < 66% cover) and conifer (> 25% and < 66%) species

Extent: North Idaho

**6104 Mixed Riparian (Forest and Non-forest)**

Description: Riparian areas co-dominated by forest and non-forest

Extent: North Idaho

**62xx – Non-forested Riparian**

**6201 Graminoid or Forb Dominated Riparian**

Description: Herbaceous riparian consists of various sedge, rush and forb species

Principal Species: *Carex* spp., *Juncus* spp., *Festuca* spp., *Poa* spp., tufted hairgrass, common reed, cattail

Extent: North and South Idaho

**6202 Shrub Dominated Riparian**

Description: Shrub riparian is dominated by *Salix* spp.

Principal Species: Twinberry, Utah Honeysuckle, Black Hawthorne, Red-osier dogwood, Sitka Alder, Rose, Currant, thimbleberry, buffaloberry, maple, chokecherry

Extent: North and South Idaho

**6203 Mixed Non-forest Riparian**

Description: Riparian areas co-dominated by shrubs and graminoid/forbs

Extent: North Idaho

**63xx Wetlands**

**6301 Deep Marsh**

Description: Marsh permanently flooded, dominated or co-dominated by bulrush (*Scirpus* spp.) and cattail (*Typha* spp.)

Extent: South Idaho

**6302 Shallow Marsh**

Description: Marsh semi-permanently flooded, dominated or co-dominated by bulrush, cattail, spikerush (*Eleocharis* spp.) baltic rush (*Juncus balticus* var. *montanus*) and sedges

Extent: South Idaho

**6303 Aquatic Bed**

Description: Aquatic beds dominated or co-dominated by pondweed (*Potamogeton* spp.), duckweed (*Lemna* spp.), and water smartweed (*Polygonum amphibium* var. *emersum*)

Extent: South Idaho

**6304 Mud Flat**

Description: Mud and Saline flats seasonally flooded with less than 5% vegetative cover that are adjacent to wetlands.

Extent: South Idaho

## **7000 Barren Land**

### **7201 Sand Dune**

#### **7202 Description: sand dunes with less than 5% vegetative cover**

Extent: South Idaho

### **7203 Vegetated Sand Dune**

Description: sand dunes with greater than 5% vegetative cover

### **7300 Exposed Rock**

Description: Exposed rock, rock outcrops, talus or scree slopes with less than 5% vegetative cover

Extent: North and South Idaho

### **7301 Lava**

Description: Lava rock with less than 5% vegetative cover

Extent: South Idaho

### **7302 Vegetated Lava**

Description: Lava with greater than 5% total vegetative cover, with plants occurring as islands or pockets in the lava flow

Extent: South Idaho

### **7800 Mixed Barren Land**

Description: Barren land and exposed soil with less than 5% total vegetative cover

Extent: North and South Idaho

### **7900 Shoreline and Stream Gravel Bars**

Extent: North Idaho

## **8000 Alpine Meadow**

### **8100 Alpine Meadow**

Description: Alpine vegetation consisting of a combination of forbs, grasses and sedges

Principal Species: *Antennaria rosea*, *Arenaria congesta*, *Astragalus spp.*, *Erigeron spp.*, *Geum spp.*, *Lupinus argenteus*, *Phlox spp.*, *Saxifraga spp.*, *Trifolium spp.*, *Artemisia spp.*, *Salix spp.*, *Vaccinium spp.*, Englemann Spruce, whitebark pine, limber pine

Extent: North and South Idaho

## **9000 Snow, Ice, Cloud or Cloud Shadow**

### **9100 Perennial Ice or Snow**

Extent: North and South Idaho